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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,826	12/27/2001	Sang-Ho Choi	P67479US0	9854
43569	7590	08/03/2005	EXAMINER	
MAYER, BROWN, ROWE & MAW LLP 1909 K STREET, N.W. WASHINGTON, DC 20006			HOM, SHICK C	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 08/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/026,826

Applicant(s)

CHOI ET AL.

Examiner

Shick C. Horn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 3/28/05 have been fully considered but they are not persuasive; because in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). While examiner agrees that Barna et al. does not teach the step of setting up a channel link passing through a T-BSC, a S-BSC, a S-PCF and a S-PDSN by establishing a channel link between the S-BSC and the T-BSC via a MSC as applicant argued in page 6 of the remarks, that channel link via the MSC is clearly shown in Madour Fig. 2, i.e. see the MSC 235 establishing a channel link between S-BSC 210, T-BSC 225, S-PCF and PDSN 220 as claimed.

### ***Specification***

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

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***Drawings***

3. The drawings are objected to because Figs. 1 and 2 submitted on 3/28/05 each should have "Replacement Sheet(s)" or "Annotated Sheet(s)" as a heading. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office

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action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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6. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barna (2002/0046277) in view of Madour (2003/0053431).

Regarding claim 1:

Madour disclose the method for performing a hard handoff (see paragraph 0019 which recite inter-PDSN handoff of a mobile station), comprising: (a) setting up a channel link passing through a target base station controller (T-BSC), a source base station controller (S-BSC), a source packet control function (S-PCF) and a source-PDSN (S-PDSN) by establishing a channel link between the S-BSC and the T-BSC in an active packet session mode (in Fig. 2 see the link passing through the target-BSC 64, the source-BSC 61, the source PCF 62, and source-PDSN 63 including the link between the source-BSC 61 and target-BSC 64 and paragraph 0016 which recite establishing the handoff during the data session); (b) performing the hard handoff between the S-BSC, the T-BSC and a mobile station (MS) (see paragraph 0039-0040 which recite the inter-PDSN handoff of a mobile station from the source base station controller and the target BSC); and (c) transmitting or receiving user packet data exchanged between the MS and the T-BSC through the established channel link to or from the S-PDSN in case the hard handoff is completed (see

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paragraphs 0035, 39, and 0041 which recite at the completion of the handoff the associated T-BSC and the T-PDSN).

Regarding claim 2:

Barna et al. disclose further comprising the steps of: (d) establishing a channel link between the T-BSC, a target packet control function (T-PCF) and a target-PDSN (TPDSN) in a dormant packet session mode (see Fig. 2 which shows the link between the T-BSC, T-PCF and T-PDSN and paragraph 0043 which recite the dormant packet session mode); (e) releasing the channel link set up between the S-BSC, the S-PCF and the S-PDSN (see paragraph 0043 which recite releasing the S-PDSN); and (g) performing a point-to-point (PPP) establishing process and a mobile Internet protocol (MIP) registering process between the MS and the T-PDSN (see paragraph 0040 which recite the MS engaged in the internet session including the registration request message to the PDSN-2 to establish the PPP connection).

For claims 1-6, Barna et al. disclose all the subject matter of the claimed invention with the exception of the mobile station center for setting up the channel link passing through the T-BSC, S-BSC, S-PCF, S-PDSN as in claims 1, 2; wherein the step (a) includes the step of: (a1) transmitting a Handoff Required message from the S-BSC to the MSC and establishing the channel link between the S-BSC and the MSC as in claim 3;

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wherein, in the step (a1), the channel link between the S-BSC and the MSC is established by including a circuit identification code (CIC) as an extender in the Handoff Required message as in claim 4; wherein the step (a) includes the step of: (a2) transmitting a Handoff Request message from the MSC to the T-BSC and establishing the channel link between the MSC and the T-BSC as in claim 5; and wherein, in the step (a2), the channel link between the MSC and the T-BSC is set up by including a circuit identification code (CIC) as an extender in the Handoff Request message as in claim 6.

Madour from the same or similar fields of endeavor teach that it is known to provide the mobile station center for setting up a channel link (see Fig. 2, the MSC 235; paragraphs 0028-0029 and 0036 which recite the MSC connection); wherein the step (a) includes the step of: (a1) transmitting a Handoff Required message from the S-BSC to the MSC and establishing the channel link between the S-BSC and the MSC (see abstract and paragraphs 29 and 33 which recited the MSC receiving the handoff required message from the S-BS); wherein, in the step (a1), the channel link between the S-BSC and the MSC is established by including a circuit identification code (CIC) as an extender in the Handoff Required message (see paragraph 33 which recite the PANID); wherein the step (a) includes the step of: (a2)

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transmitting a Handoff Request message from the MSC to the T-BSC and establishing the channel link between the MSC and the T-BSC (see abstract and paragraphs 0029, 0033); and wherein, in the step (a2), the channel link between the MSC and the T-BSC is set up by including a circuit identification code (CIC) as an extender in the Handoff Request message (see paragraph 33 which recite the PANID).

Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide the mobile station center for setting up the channel link; wherein the step (a) includes the step of: (a1) transmitting a Handoff Required message from the S-BSC to the MSC and establishing the channel link between the S-BSC and the MSC; wherein, in the step (a1), the channel link between the S-BSC and the MSC is established by including a circuit identification code (CIC) as an extender in the Handoff Required message; wherein the step (a) includes the step of: (a2) transmitting a Handoff Request message from the MSC to the T-BSC and establishing the channel link between the MSC and the T-BSC; and wherein, in the step (a2), the channel link between the MSC and the T-BSC is set up by including a circuit identification code (CIC) as an extender in the Handoff Request message as taught by Madour in the communications method of Barna et al.

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The mobile station center; wherein the step (a) includes the step of: (a1) transmitting a Handoff Required message from the S-BSC to the MSC and establishing the channel link between the S-BSC and the MSC; wherein, in the step (a1), the channel link between the S-BSC and the MSC is established by including a circuit identification code (CIC) as an extender in the Handoff Required message; wherein the step (a) includes the step of: (a2) transmitting a Handoff Request message from the MSC to the T-BSC and establishing the channel link between the MSC and the T-BSC; and wherein, in the step (a2), the channel link between the MSC and the T-BSC is set up by including a circuit identification code (CIC) as an extender in the Handoff Request message can be implemented by connecting the MSC including the transmission of Handoff Required message and circuit identification code being as an extender in the Handoff Request message of Madour between the MS, source-BSC, target-BSC, and the PDSNs of Barna et al. The motivation for using the MSC including the transmission of Handoff Required message and circuit identification code being as an extender in the Handoff Request message as taught by Madour in the communication method of Barna et al. being that it provides more efficiency for the system since the system uses a single center for handoff of the

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mobile station rather than having duplicate circuits for inter-PDSN handoff.

**Conclusion**

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C. Hom whose telephone number is 571-272-3173. The examiner can normally be reached on Monday to Friday with alternate Fridays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SH

  
DANG TON  
PRIMARY EXAMINER